

PATENT ABSTRACTS OF JAPAN

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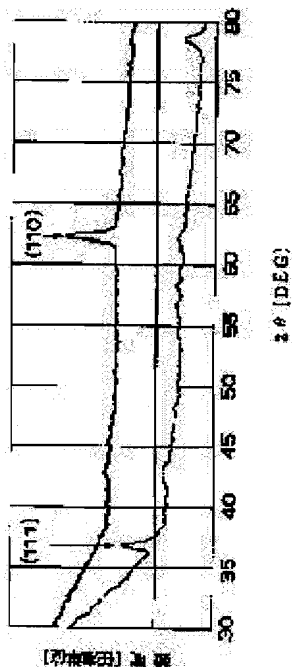
(21)Application number : 08-261639

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(54) PLASMA DISPLAY PANEL



(57)Abstract:

PROBLEM TO BE SOLVED: To enhance sputtering resistance of a protective film by arranging a magnesium oxide film of a 110 orientation.

SOLUTION: An MgO film of a 110 orientation is formed as a protective film on a surface of a dielectric layer of PbO type low melting point glass of a plasma display panel. A glass substrate on which a sustained electrode and the dielectric layer are formed is fixed in an evaporation device chamber, and as one example, oxygen partial pressure is kept in 1×10^{-4} Torr, and steam partial pressure is kept in a constant value, and evaporation is

performed. Hydrogen gas and oxygen gas are introduced, and for example, the steam partial pressure is set in a range not more than 5×10^{-4} Torr, and the 110 orientation

is enhanced according to an increase in the steam partial pressure exceeding 1×10^{-4} Torr. When the membrane of the MgO film formed into the dielectric layer is taken as 110 orientation, a membrane close to high density bulk is obtained, and sputtering resistance can be enhanced.

CLAIMS

[Claim(s)]

[Claim 1] A plasma display panel characterized by coming to provide a magnesium oxide film of orientation (110) as a surface-protection film of a dielectric layer which covers a display electrode.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is an exploded perspective view showing the internal structure of PDP concerning this invention.

[Drawing 2] It is a figure showing orientation distribution of a protective film.

[Drawing 3] It is a graph which shows the relation between a steam partial pressure and the crystal orientation of a MgO film.

[Description of Notations]

1 PDP (plasma display panel)

17 Dielectric layer

18 Protective film (surface-protection film)

X, Y sustaining electrode (display electrode)